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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/509,222	11/09/2004	Koki Ikeda	2004 1539A	5125

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WASHINGTON, DC 20006-1021

EXAMINER
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BOYKIN, TERRESSA M

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 12/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/509,222

**Applicant(s)**

IKEDA ET AL.

**Examiner**

Terressa M. Boykin

**Art Unit**

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 3-27 and 29-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3-27 and 29-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 6-8-06.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**Priority**

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

**Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 3-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 200155436 see abstract, claims; further in view of USP 5303834.**

The reference discloses a polycarbonate prepared from the same components as claimed by applicants.

**JP 2001-55436** discloses a molding material having the moldability suitable for producing optical recording media such as a compact disk or a laser disk compatible with low birefringence properties by composing the molding material of a specific polycarbonate having an intrinsic viscosity within a specified range.

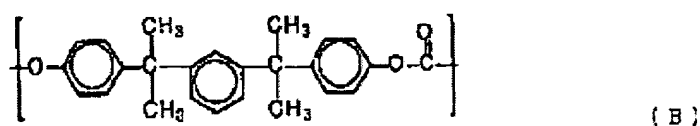
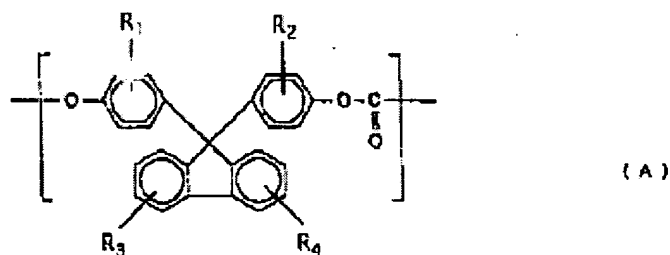
This molding material is composed of a polycarbonate having (A) a structural unit represented by formula I ( $R_1$  to  $R_4$  are each H, a 1-5c alkyl, a 6-12c aryl, a 2-5c alkenyl or the like) [e.g. 9,9-bis(4-hydroxy-3-methylphenyl)fluorene] and a structural unit represented by formula II so as to provide 10-90 mol% of the

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structural unit represented by formula I in the total structural units and further 0.3-0.5 dL/g intrinsic viscosity. The molding material is obtained by blowing phosgene into a compound represented by formula III and 4,4'-[1,3-phenylenebis(1-methylethylidene)] bisphenol in the presence of an aqueous solution of an alkali and an organic solvent, then adding a quaternary ammonium salt, initiating a polycondensation reaction and subsequently adding a monohydric phenol and further a tertiary amine polymerization catalyst and accelerating the polycondensation.

The molding material as set forth above, may also be used for optical recording medium comprising a polycarbonate having limiting viscosity number of 0.3 - 0.5 dl/g, which has two specific structural units.

The two specific structural units are represented by formula (A) and formula (B) respectively.



wherein R1 - R4 = hydrogen atom, 1-5C alkyl, 6-12C aryl, 2-5C alkenyl, 1-5C alkoxy or 7-17C aralkyl; provided that all of R1 - R4 cannot be hydrogen atoms at the same time.

In the above-mentioned polycarbonate, the ratio of the structural units (A) is 10 - 90 mol% based on the whole structural units. Production of the molding

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material in which phosgene is blown into an alkaline aqueous solution and an organic solvent containing a compound of formula (C) and 4, 4'-(1,3-phenylene bis(1-methylethylidene))bisphenol then a quaternary ammonium salt is added and a tert-amine polymerization catalyst is added to start polycondensation reaction, then monohydric phenol is added as a molecular weight controlling agent then tert-amine polymerization catalyst is added and the polycondensation is promoted.

The molding material is useful for producing an optical recording medium, such as optical disc and photomagnetic disc etc..

The molding material has high moldability and low double refractivity.

With regard to dependent claims, since the disclosed amounts are in some cases expressed differently, other than mol%, they nevertheless appear to overlap those claimed and thus are not distinguishable over the prior art. Any properties or characteristics inherent in the prior art, e.g. parameters, flexural modulus, tan measured, deflection temperature etc., although unobserved, unmentioned or detected by the reference, would still anticipate the claimed invention. Note *In re Swinehart*, 169 USPQ 226. "It is elementary that the mere recitation of a newly discovered...property, inherently possessed by things in the prior art, does not cause claim drawn to those things".

Thus, the reference discloses a copolycarbonate prepared from the same amounts of a 9,9- bis (4 hydroxy -3 methylphenyl) fluorene and bisphenol type moiety to prepare a copolymer prepared from the same components as claimed by applicants except for

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particular bisphenol moiety as claimed. Applicants' claim 3 etc. remains broadly set forth with regard to the recited "part" such that the claim continues to be interpreted by the Examiner as anticipated by prior art while remaining within the scope of the specification. As noted above, the molding material is useful, but not limited to, producing an optical recording medium, such as optical disc and photomagnetic disc etc..

The molding material has properties that would be considered desirable for a 'part' in reflow soldering such as high moldability and low double refractivity. Applicants have not been specific with regard to the type of "part" that may be used or employed.

It is noted:

" reflow soldering is the *most common means* to attach a surface mounted component to a circuit board, and typically consists of *applying solder paste*, positioning the devices, and reflowing the solder in a conveyorized oven. The goal of the reflow process is to melt the powder particles in the solder paste, with the surfaces being joined together, and solidify the solder to create a strong metallurgical bond. There are usually four process zones in conventional reflow process, consisting of preheat, thermal soak (often shortened to just soak), reflow and cooling."

It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a bisphenol moiety since such type of bisphenol as claimed is common and infact more readily available and used commonly than that which is actually employed in the reference.

Further, as stated above, the composition may be used as a mold form in which may include a part for various products, i.e. reflow soldering part. Since applicants are not specific as to the specific part, and since the composition appear to have the same characteristics, it is reasonable to conclude that they may be used in the same capacity.

**USP 5303824** discloses that preferably, the materials of the holder are clear for visually inspecting the delicate flux coating on the bottoms of the preforms without disturbing the preforms or contaminating the flux coating. Preferably, the sheet is a moldable polymeric material and the cavities are vacuum molded from the sheet to provide a smooth continuous integral joint between the same materials and with the same thickness to provide maximum reliability at minimum costs. Most preferably the material is a clear polycarbonate.

Thus, it would have also been obvious to one having ordinary skill in the art at the time the invention was made to employ the composition as disclosed as a part for reflow soldering since the reference **USP 5303834** discloses the polycarbonates in general are preferable and that clear polycarbonates as is the case with the reference above are the most preferred.


Consequently, the claimed invention cannot be deemed as unobvious and accordingly is unpatentable.

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Terressa M. Boykin whose telephone number is 571 272-1069. The examiner can normally be reached on Monday-Thursday 10-5:30 Friday (work at home).

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Terressa M. Boykin  
Primary Examiner  
Art Unit 1711

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